

App. No. 09/963,270
RCE to FOA of 02/22/06

Remarks

In the present RCE, claim 1 is amended. No new matter is entered. Claims 1-8 and 10-23 are presented for examination.

I. Interview with Examiner

Philip Lyren (patent attorney) and Alan Karp (inventor and principal scientist at Hewlett-Packard Co.) thank Examiner Fowlkes for having an interview on April 19, 2006. As discussed in the telephone interview, Applicants are amending claim 1 to recite "replacing the selected instruction in the object code with a break instruction" in order to clearly distinguish over Levine. With this amendment, Applicants make a sincere effort to put this case in condition for allowance.

II. Claim Rejections: 35 USC § 112

Claims 1-8 and 10-23 are rejected under 35 USC 112, first paragraph, as failing to comply with the written description requirement. The Office Action argues that no support in the original specification exists for claims 1, 8, and 16 ("resuming the execution of the object code without changing addresses of subsequent instructions in the object code"). Applicants respectfully traverse.

As noted by scientist Karp during the telephone interview, replacing a selected instruction in the object code with a break instruction will not change addresses of subsequent instructions in the object code. This fact is known to those of ordinary skill in the art.

Further, as discussed in the telephone interview, the original specification supports the recitation of "resuming the execution of the object code without changing addresses of subsequent instructions in the object code." First, the Background section states that prior systems translate object code, but "such object code translations usually alter object code sequences which can cause errors" (p. 2, lines 18-20). The Summary section states exemplary embodiments that provide "hint instructions to a processor without altering object code instruction sequences" (p. 3, lines 3-5). Further, the specification discusses an example wherein the object code adapter replaces object code with a break instruction:

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The break instructions B_1 through B_x cause the processor 11 to obtain and execute hint instructions which are provided via the hint register 12 in the processor 11.

In one embodiment, the hint register 12 holds a set of parameters including a hint instruction (H_x), an instruction (I_x), an address (P_{x+1} (address)). The hint instruction H_x is an instruction to be executed by the processor 11 in response to a next break instruction in the instruction stream 18. The instruction I_x is the instruction in the instruction stream 16 that was replaced by the break instruction to which the hint instruction H_x corresponds. The address P_{x+1} (address) is an address from which to obtain a next set of parameters P_{x+1} to be loaded into the hint register 12. (See FIG. 2: p. 9, line 26 – p. 10, 9).

In light of the discussions during the telephone interview and teachings in the original specification, Applicants respectfully ask the Examiner to withdraw this rejection.

III. Claim Rejections: 35 USC § 102 & § 103

Claims 1-7, 16, 17, and 21-23 are rejected under 35 USC § 102(e) as being anticipated by USPN 6,134,710 (hereinafter Levine). Claims 8-15 and 18 are rejected under 35 USC § 103 as being unpatentable over Levine in view of USPN 6,134,710 (Bickemeyer). Claims 19 and 20 are rejected under 35 USC § 103 as being unpatentable over Levine in view of Grimsrud. These rejections are traversed.

As discussed in the telephone interview, Applicants amend claim 1 to recite “replacing the selected instruction in the object code with a break instruction” in order to clearly distinguish over Levine. Claim 1 further recites “resuming execution of the object code without changing addresses of subsequent instructions in the object code.” As agreed in the interview, Levine does not teach or suggest these recitations. FIG. 12 of Levine teaches that branch instructions (not break instructions) are inserted into the

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object code. The branch instructions in Levine, however, alter the addresses of subsequent instructions in the object code when the object code resumes executing.

For at least these reasons, independent claim 1 and its dependent claims are allowable over Levine and the art of record. Independent claims 8 and 16 recite similar recitations. Specifically, claim 8 an object code adapter that "inserts a break instruction into the object code, the break instruction replacing a selected instruction in the object code" and then resuming "execution of the object code without changing addresses of subsequent instructions in the object code." Claim 16 recites "replacing a selected instruction in the object code with a break instruction." Claim 16 then recites "resuming, upon execution of the instruction to resume, execution of the object code without changing addresses of subsequent instructions in the object code."

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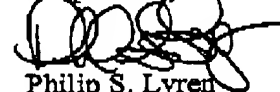
CONCLUSION

In view of the above, Applicants believe all pending claims are in condition for allowance. Allowance of these claims is respectfully requested.

Any inquiry regarding this Amendment and Response should be directed to Philip S. Lyren at Telephone No. 832-236-5529. In addition, all correspondence should continue to be directed to the following address:

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Respectfully submitted,

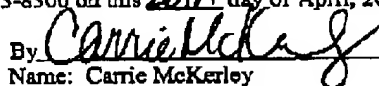


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CERTIFICATE UNDER 37 C.F.R. 1.8

The undersigned hereby certifies that this paper or papers, as described herein, is being transmitted to the United States Patent and Trademark Office facsimile number 571-273-8300 on this 20th day of April, 2006.

By



Name: Carrie McKerley